

THE CLAIMS

Having thus described the invention what is CLAIMED is:

1. A photopolymerizable composition comprising, based upon the weight of said composition, about 5 to 45 percent of an epoxy resin, about 94 to 55 percent of a copolymerizable material, and about 1 to 10 percent of a free radical photoinitiator, said composition being devoid of any catalytic cationic ingredient.
2. The composition of Claim 1 wherein said copolymerizable material includes an effective amount of at least one compound selected from the comonomer group consisting of vinyl and (meth)acrylic monomers containing acrylamide or amide functionality or an hydroxyl group.
3. The composition of Claim 2 wherein said comonomer group consists of N,N-dimethyl acrylamide, n-vinyl 2-pyrrolidone, n-vinylcaprolactam, acryloyl morpholine, N-(n-butoxymethyl acrylamide, N-isopropyl acrylamide, N-3-dimethylaminopropyl methacrylamide, glycerol 1,3-diglycerolate diacrylate, 4-hydroxybutyl acrylate, 2-hydroxyethyl methacrylate, acrylated polyols, vinyl polyols, and (meth)acrylic acid.
4. The composition of Claim 2 wherein said comonomer comprises a compound containing the amide or acrylamide functionality, present in an amount not in excess of 80 weight percent.
5. The composition of Claim 4 wherein said amount of said compound containing the amide or acrylamide functionality is at least about 50 weight percent.
6. The composition of Claim 2 wherein said comonomer comprises a compound containing the hydroxyl group, present in an amount not in excess of about 70 weight percent.
7. The composition of Claim 6 wherein said amount of said compound containing the hydroxyl group is at least about 20 weight percent.

8. The composition of Claim 3 wherein said composition contains about 20 weight percent of epoxy resin, about 50 weight percent of N,N-dimethylacrylamide, and about 25 percent of cellulosic oligomer.

9. A photopolymerizable composition comprising, based upon the weight of said composition, about 5 to 45 percent of an epoxy resin, about 94 to 55 percent of a copolymerizable material, and about 1 to 10 percent of a free radical photoinitiator, said copolymerizable material including an effective amount of at least one compound selected from the comonomer group consisting of vinyl and (meth)acrylic monomers containing acrylamide or amide functionality or an hydroxyl group.

10. The composition of Claim 9 wherein said comonomer group consists of N,N-dimethyl acrylamide, n-vinyl 2-pyrrolidone, n-vinylcaprolactam, acryloyl morpholine, N-(n-butoxymethyl acrylamide, N-isopropyl acrylamide, N-3-dimethylaminopropyl methacrylamide, glycerol 1,3-diglycerolate diacrylate, 4-hydroxybutyl acrylate, 2-hydroxyethyl methacrylate, acrylated polyols, vinyl polyols, and (meth)acrylic acid.

11. The composition of Claim 9 wherein said comonomer comprises a compound containing the amide or acrylamide functionality, present in an amount not in excess of 80 weight percent.

12. The composition of Claim 11 wherein said amount of said compound containing the amide or acrylamide functionality is at least about 50 weight percent.

13. The composition of Claim 9 wherein said comonomer comprises a compound containing the hydroxyl group, present in an amount not in excess of about 70 weight percent.

14. The composition of Claim 13 wherein said amount of said compound containing the hydroxyl group is at least about 20 weight percent.

15. The composition of Claim 9 wherein said composition is devoid of any catalytic cationic ingredient.